

1.-13. (CANCELED)

14. (NEW) A method for manufacturing a nano-particulate electrode for Dye Solar Cells including the steps of:

providing an electrically conductive substrate,
forming a nano-particulate layer on the substrate,
applying a dye to the nano-particulate layer; and
an additional step of electrolytic treatment of the nano-particulate layer in an electrolyte.

15. (NEW) The method according the claim 14, further comprising the step of the electrolyte containing ions chemically different to the nano-particulate layer and the electrolytic treatment step comprises transferring material from the electrolyte in the form of ions into the surface of the nano-particulate layer resulting in formation of a barrier-layer, electronic properties of which differ from that of the original nano-particulate layer.

16. (NEW) The method according to claim 14, further comprising the step of heating to ensure stable bonding of the barrier layer to the nano-particulate layer, following the electrolytic treatment step.

17. (NEW) The method according to claim 13, further comprising the step of partial removal of material from the nano-particulate layer to the electrolyte during the electrolytic treatment step.

18. (NEW) The method according to claim 13, further comprising the step of containing ions of UV, visual light and/or Infra red absorbing material in the electrolyte.

19. (NEW) The method according to claim 17, further comprising the step of using dye as the absorbing material.

20. (NEW) The method according to claim 14, further comprising the step of using a metal or a mixed metal oxide as the nano-particulate layer.

21. (NEW) The method according the claim 20, further comprising the step of using titanium dioxide as the metal oxide.

22. (NEW) A method for manufacturing nano-particulate electrode for DSC including the steps of:

providing a substrate, and

electrolytic deposition of the nano-particulate layer from an electrolyte and application of dye to the nano-particulate layer.

23. (NEW) The method according to claim 14, further comprising the step of the electrolytic treatment including at least one step of transfer of a predetermined amount of electrical charge between the electrolyte and the nano-particulate layer.

24. (NEW) The method according to claim 23, further comprising the steps of transferring the charge under constant current conditions with imposed voltage limits, such as when voltage reaches the imposed limit a control circuitry switches from the constant current to the constant voltage mode, keeping the constant voltage mode until either the current drops below a predetermined current value or the predetermined amount of electrical charge has passed between the electrolyte solution and the nano-particulate electrode.

25. (NEW) The method according to claim 23, further comprising the step of the electrolytic treatment including at least first and second half-cycles, each transferring the predetermined amount of charge; in the first half-cycle the charge is transferred by movement of ions from the electrolyte to the nano-particulate layer, in the second half-cycle the charge is transferred by movement of ions from the nano-particulate layer to the electrolyte.

26. (NEW) The method according to claim 25, further comprising the step of the electrolytic treatment including at least first and second cycles and a predetermined charge in the second cycle is larger than in the first cycle.